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WHITE, H.

POSTGRADUATE TRAINING FOR
COMPTROLLERSHIP IN THE NAVY

HARRY C. WHITE

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POSTGRADUATE TRAINING FOR
COMPTROLLERSHIP
IN THE NAVY

NAVY GRADUATE COMPTROLLERSHIP PROGRAM
George Washington University
Washington, D. C.

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UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

WASH. D. C.

REPORT OF THE BUREAU OF LAND MANAGEMENT

ON THE PROGRESS OF THE BUREAU OF LAND MANAGEMENT

IN THE YEAR 1958

BY H. WHITE

AND OTHERS

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TABLE OF CONTENTS

	Page
INTRODUCTION	1
Chapter	
I. BACKGROUND	3
II. COMPTROLLERSHIP TRAINING IN INDUSTRY	14
III. COMPTROLLERSHIP IN THE NAVY	31
IV. THE NAVY'S POSTGRADUATE TRAINING PROGRAM FOR COMPTROLLERSHIP	44
V. COMPARISON OF COMPTROLLERSHIP TRAINING PROGRAMS OF INDUSTRY AND THE NAVY.	56
VI. CONCLUSIONS.	59
BIBLIOGRAPHY	63

INTRODUCTION

An entirely new concept of management was introduced in the Navy in 1949 by the passage of Title IV of Public Law 216.¹ Designed to promote economy and efficiency in the conduct of the Navy's business this law was to become the foundation for a fiscal environment unlike anything ever before experienced in the Navy's history. It was the beginning of a long range program whose goal was the use of sound financial management procedures at all levels of management for the purpose of obtaining the maximum defense per tax dollar expended.

In view of this new fiscal environment the question might well be asked: How is the Navy preparing its managers, namely its officer corps, to fulfill their financial management responsibilities today and for the future? It is the purpose of this paper to investigate this question in terms of the requirements imposed by our new fiscal environment, to survey present training programs designed to meet these requirements, and to suggest possible improvements in those areas of the program which appear to fall short of fulfilling requirements. Since comptrollership was the first organized program of academic study designed specifically to meet the Navy's financial management training requirements, this paper will concentrate upon this aspect of the training program.

The approach followed in this paper is similar to that followed by the Hoover Commission in its study of organization and management procedures which would lead to increased economy and efficiency in the operations of the Federal Government. That is, the Navy's training program for comptrollership is com-

¹National Security Act Amendments of 1949, Title IV, Public Law 216, 81st Congress.

pared with industry's in terms of the different goals of these two organizations. This comparison is then followed by an analysis of the present training program in terms of Navy requirements, and finally improvements are suggested in those areas which do not appear to be meeting requirements.

Throughout the thesis runs the thought that comptrollership by its nature requires a "broad gauged" individual who has a thorough appreciation of all aspects of the organization's problems. Therefore, the Navy's Graduate Comptrollership Training Program, like industry's, should emphasize the broad educational preparation for top command and management positions instead of positions in a technical specialty.

CHAPTER I

BACKGROUND

The Navy's new financial environment.--The last shot had hardly been fired in World War II before it became painfully apparent to our citizens that they would have to maintain a permanent military establishment of a size and scope never before experienced in our nation's history. The tremendous tax burden imposed by this requirement threatened to upset not only our economy, but our entire way of life unless our defense establishment was managed in such a manner that we obtained maximum defense per dollar of taxes expended.

If the requirement for a large permanent military establishment were temporary or even if the need for such a gigantic organization's continued existence could be predicted, we would not have been forced to change so radically the organization's previous methods of management. Unfortunately, however, our opponent's ways were both wiley and devious. In some respects he was more dangerous than any enemy ever faced by our nation since its birth because his society was one founded not upon Christian principles but atheistic materialism. Therefore, he was capable and did conduct a political, economic, and psychological war in a quasi-peacetime atmosphere which was quite foreign to anything the Western World had ever before experienced. This new type of warfare, later termed "the cold war" was extremely profitable for our opponent. So profitable in fact that in less than five years after the end of World War II, he had subjugated most of Eastern Europe and all of China. It also proved to our citizens that any thoughts they might have entertained of returning to

traditional peacetime military force levels to save tax dollars were quite impractical if we and the Western World were to escape subjugation by an intolerable atheistic society.

The new cold war climate confronting our nation posed a real dilemma to our political leaders. If the United States were to reduce its military force levels to pre-World War II levels, our opponent would simply confiscate its smaller neighbor's freedoms by internal subversion and the external threat of its mighty army. The coup de etat in Czechoslovakia in December of 1947 provided the Western World with a sharp reminder of the success of such a technique. On the other hand if we continued to expend an inordinate percentage of our gross national product in an attempt to maintain the military forces sufficient to counter such tactics, we could conceivably find ourselves making good the boast of the great communist theorist, Karl Marx, who claimed that capitalism, and our way of life, contained the seeds of its own destruction.

To further complicate our dilemma, the rapid technological progress during and since World War II completely upset traditional methods of waging war. The speed and destructive power inherent in these new weapons systems nullified the former "time and space" factors which had given our nation the necessary delay after hostilities commenced to make use of its mobilization base to ultimately decide the conflict in its favor. Furthermore, this new scientific era in warfare created a generation of weapon systems and weapons technicians which were more costly than anything ever before experienced in military history. Even if the impact of defense spending on our national economy could be disregarded, the premium on utilization of scarce material and skills could not be if we were to win future conflicts.

Prominent American leaders both in industry and in political life such

as our first great Secretary of Defense, the Honorable Mr. James Forrestal, had the vision and courage to realize that if we were to preserve both our freedom and our way of life, we had to find some way of remaining militarily strong without jeopardizing our economic health over an extended period of time.

In their search for a solution to this problem, the President and Secretary Forrestal appointed prominent groups of private citizens, such as the First Hoover Commission and the Voorhees Committee, to study and make recommendations on organization and fiscal management in the federal government. For the most part these citizen groups borrowed a page from industry's book and recommended that henceforth government organizations, including the Defense Department, should be organized and operated on a business-like basis.

Both Congress and the Executive branch of our government were quick to implement these recommendations and ever since 1949 have been conducting an expanding program along these lines. As a result, management in the Navy is conducted in an entirely different environment from that which existed in the pre-World War II era. Furthermore, it does not appear that there will be an abatement of the trend toward increased financial management responsibility within the Navy in the foreseeable future. Factors which tend to point toward a continued emphasis in this area are: (1) The nature of our present conflict is such that the economic health of our nation is just as much a battleground today as the land, sea, or sky was in previous wars. (2) The tremendous cost of modern weapons systems dictates that we utilize scarce manpower and material in the most efficient manner possible. Good financial management provides us with a means of attaining the increased efficiency required to accomplish this objective. (3) The speed and destructive power of modern war precludes full utilization of the mobilization base concept which characterized our previous

to the fact that the Government of the United States, in its policy of international relations, has been guided by the principle of non-interference in the internal affairs of other nations. This principle is based on the belief that every nation has the right to determine its own destiny without outside interference.

In the case of the United States, this principle has been consistently applied. The United States has never intervened in the internal affairs of any other nation, except in the case of the Philippines, where it was forced to do so by the terms of the Spanish-American War. Even in this case, the United States has always maintained that its intervention was necessary for the preservation of peace and stability in the region.

The United States has also been a strong advocate of the principle of self-determination. It has supported the right of all peoples to determine their own political status and to govern themselves. This principle is embodied in the United States Constitution and in the Declaration of Independence. The United States has also been a leading proponent of the League of Nations and of the United Nations, both of which are based on the principle of self-determination.

The United States has also been a strong supporter of the principle of collective security. It has believed that the only way to ensure peace and stability in the world is by having all nations agree to a common set of rules and principles. This principle is embodied in the United States Constitution and in the Declaration of Independence. The United States has also been a leading proponent of the League of Nations and of the United Nations, both of which are based on the principle of collective security.

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military endeavors. Therefore, we must maintain larger forces in being both as a deterrent and as an instrument of power to implement our national foreign policy in the cold or limited war situations which characterize the community of nations today. (4) Congress and both of our great political parties have gone on record many times in favor of a policy of conducting defense on a more business-like basis. It thus appears that a knowledge of modern business principles of financial management is a fundamental requirement for the managers in today's naval establishment.

The development of the comptrollership concept.--The foregoing demonstrates the importance of financial management in today's Navy. In the paragraphs which follow a brief history is given of the development of the comptrollership concept as a tool of financial management in industry. Following this is a description of the Navy's adoption of the modern concept of comptrollership from industry as a result of prominent private citizen study groups such as the Voorhees Committee and Title IV of Public Law 216. This description is in turn followed by a brief summary of some of the more recent legislation in this field to show how the Hoover Commission's recommendations for conducting defense of our nation on a business-like basis are in fact becoming a reality.

Comptrollership in industry.--The title of Comptroller, like that of Treasurer, had its origin in government. The term "Countrollour" meaning one who kept the roll of incoming monies and goods existed in England even prior to the fifteenth century. During the fifteenth century the word was adopted in various offices of the English Royal Household, such as the Countroller of Accounts in the Lord Chamberlain's Office. In the United States the name of comptroller first came into existence by an act of the Continental Congress on

April 1, 1776. This act provided for a comptroller, auditor, treasurer, and six commissioners of accounts all to be appointed annually by Congress.¹

In spite of this ancient heritage in government, comptrollership in American business is a relatively recent development. When it is used in the sense of the principal business executive officer whose duty is to translate information obtained in accounting and business records for purposes of administrative control, the comptroller has existed for only about thirty years. Comptrollership came into existence because of the complexities of organization and operation of modern American business enterprises, the shifting social pattern of enterprise ownership, and increased governmental intervention for tax purposes or in the public interest. These developments all forced management to look for a means to make the mass of data which normally accrued in the process of safeguarding assets more useful in managerial decision making. To survive in the new business climate it became necessary for top management to rely upon some officer who had the ability and judgement to translate meaningless accounting and statistical data into terms which would be useful for managerial planning and control. Thus, within the last thirty years we find that the officer who could perform this analytical and interpretative function, i.e., the comptroller, has become an executive of major importance at the administrative level of the top-management group.

Comptrollership in the Navy.--If comptrollership as used in the modern context of a top level executive function is a youngster in American industrial life, it is virtually a baby in the Navy. It was ironical that the modern concept of comptrollership was so completely foreign to those entrusted with

¹T. F. Bradshaw and C. C. Hull, Controllershship in Modern Management, (Chicago: Richard D. Irvin, 1950), p. 19.

the management and operation of the executive branch of the government when Congress enacted Title IV of Public Law 216, especially since the name itself had a governmental history dating back to the fifteenth century. In retrospect it may have been a mistake to borrow industry's term for this new function of financial management because the layman naturally assumed that the comptroller was little more than the traditional chief record keeper whose primary function was accountability for public funds expended by activities in his charge. The foregoing is not intended to imply that the Navy was not conscious of the need for improved financial management prior to the enactment of Public Law 216. Its intent is merely to place in proper perspective the vast difference between the traditional record keeping function of accounting for tax monies expended and the modern comptrollership function of analyzing and interpreting fiscal information on a day to day basis as a service to management.

Although the Navy had not recognized the modern function of comptrollership prior to the enactment of Title IV, the importance of financial management had been recognized in the Navy for many years. For example, the Navy, in collaboration with the House Appropriations Committee, recommended the adoption of a revised appropriation structure along program and performance lines as early as 1946. The Navy was also the first Service to submit a performance budget to Congress. Industrial or commercial type accounting to the extent permitted by law was established at major activities prior to the National Security Act Amendments of 1949, and the Navy's revolving stock fund to finance common usage items on an issue rather than initial procurement basis has existed since 1893. These examples of early recognition of the importance of financial management are cited to show that there was an awareness of the importance of this aspect of management within the Navy even before external conditions forced our organization into its present fiscal environment. The reason the Navy had not

done more to utilize the modern industrial concept of comptrollership and other financial management procedures for increased economy and efficiency can be attributed in part to that fact that accounting and appropriation procedures prohibited such action. These procedures emphasized the "where" of tax exemption not the "how well" or even whether or not the expenditure itself was necessary at all.

The real spark which kindled the managerial revolution in the Navy came from the first Hoover Commission's report and various other special studies made by the Navy and the Department of Defense. In May, 1948, Mr. E. M. Voorhees, Chairman, Finance Committee, United States Steel Corporation, was appointed by Secretary Forrestal to make an overall study of fiscal management in the Department of Defense. The recommendations contained in this study for the organization for fiscal management in the Department of Defense were similar in many respects to those which were later developed under Title IV. Title IV of the National Security Act Amendments of 1949 established the Assistant Secretary of Defense (Comptroller) and a comptroller in each of the three military services. The comptrollers of the three military services were to be responsible for budgeting, accounting, progress and statistical reporting, internal audit and the administrative organizational structure and managerial procedures relating thereto. It also provided for various improvements in those comptroller functions such as performance budgeting and working capital funds. This act was destined to mark the beginning of the modern financial management concept in the Navy which may someday completely revolutionize our concepts on what constitutes qualifications for command.

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To implement Title IV, the Secretary of the Navy on 1 June 1950 designated the Assistant Secretary of the Navy for Air as the first Comptroller of

the Navy. Thus, for the first time the Navy had a single office within the organization where the various fiscal functions being performed at different organizational locations throughout the department could be consolidated and controlled, and the responsibility for performance of these functions could be fixed upon one individual. In addition to the foregoing advantage it now became possible to more closely parallel the Navy's financial management procedures with those of industry and the analytical and interpretive functions of comptrollership could be used as a service to the Navy's top management.

A second study group which deserves mention at this time is the Committee on Organization of the Department of the Navy which was chaired by the then Undersecretary of the Navy, Thomas S. Gates, Jr. The report of this committee of 16 April 1954 recommended a full time Assistant Secretary for Financial Management. Such a position was established by Public Law 562 of the 83rd Congress. On 23 October, 1954, the Secretary of the Navy designated the Assistant Secretary for Financial Management as the Comptroller of the Navy. With the appointment of the Honorable William B. Franke on 4 October 1954 and his subsequent designation on 23 October 1954 as the Comptroller of the Navy, we find the long range program for conducting defense on a business-like basis moving a step closer to the realization of its goal. For the first time the Navy had a financial manager with assistant secretarial status and the function of comptrollership became this Assistant Secretary's prime responsibility.

Recent legislation.--Recent legislation designed to improve financial management objectives in the federal government stemmed from the second Hoover Commission's recommendations. This commission was established by Congress in 1953 as a manifestation of its continuing interest in improved management and organization in the federal government. The second Hoover Commission's Budget

and Accounting Report endorsed the financial management objectives which had been identified and defined as a result of cooperative efforts in recent years toward the use of improved budgeting, accounting, and reporting practices by presenting recommendations that were consistent with current improvement efforts. The 84th Congress evidenced its interest in these recommendations by introducing identical bills in each House which covered those recommendations of the Commission that required legislation for effective implementation.

As a result of these legislative considerations, two public laws related to the proposals of the second Hoover Commission were enacted. The first of these--Public Law 798 was signed by the President on July 25, 1956. As originally introduced this law provided for the merger of the unliquidated obligations of appropriations made for the same general purpose, and agency payment of claims. As enacted, Public Law 798 continues the requirement of separate appropriation accounts for two fiscal years after the fiscal year for which the appropriation was made, but provides for improvement of the claim procedures.

The second bill enacted by the 84th Congress--Public Law 863 was signed by the President on August 1, 1956. This was the major legislative proposal on the budget and accounting recommendations of the second Hoover Commission. As introduced, it covered nine of those recommendations, including provisions for gradual conversion to a procedure under which the Congress would appropriate funds in terms of "accrued expenditures," the use of costs in accounting and budgeting in the executive agencies, the improvement of agency allotment practices, and the development of consistency in financial and organization classifications. During consideration of this bill by the Congress the provision for appropriating funds on the "accrual expenditure" basis was deleted.

Public Law 863 constitutes an important keystone of the financial

improvement effort. It establishes in law a basic principle for government budgeting and accounting--the development and use of cost information. It provides an expression of intent on the part of the legislative branch, which together with the President's statement on policies of the executive branch, provides a firm basis for moving forward in the improvement of financial management as rapidly as available resources permit.

Public Law 863 as enacted covers the following:

- (1) Accounting on an accrual and cost basis
- (2) Budgeting on a cost basis
- (3) Use of consistent classifications
- (4) Justification of allotment structure²

The really significant feature to this bill is its conversion of federal agencies accounting procedures to the accrual basis of accounting. This system incorporates financial controls which are consistent with management responsibilities. It provides for broad fund controls in terms of limitations on obligations at a fairly high level of agency operations, and more detailed controls in terms of estimates of specific costs attributable to each of the agency programs.

As previously noted, Public Law 863 did not incorporate the feature of congressional appropriation of funds on the "accrual expenditure" basis. In the summer of 1957, Senator Kennedy of Massachusetts introduced a bill to accomplish this objective. The bill was passed by the Senate at this time and the House of Representatives passed a similar bill with slightly different provisions this year (1958). At the present time the two bills are in the joint conference committee. Thus, we see that the stage is now set for the complete

²Bureau of the Budget, Executive Office of the President, "Improvement of Financial Management in the Federal Government," p. 6.

administration of the Navy by the financial management procedures which characterize modern American industry.

Summary.--In this chapter we have seen how international developments since World War II forced our nation to adopt a new financial environment for the Department of Defense and the Navy. We have traced the development of the comptrollership function in American business and observed how industry has used it to cope with the increasingly complex problems of management and organization which have occurred since the turn of the century. We have noted that this complexity results from the gigantic size of these enterprises, the shifting social pattern of ownership and the increased intervention of the government either for tax purposes or in the public interest. We have also seen how our national leaders in their quest for a more efficient means of managing an ever larger and more complex Executive branch of the government have turned to industry for a solution to this problem. From industry our leaders have borrowed the modern concept of comptrollership as a primary aid to top management. It is their hope that this function will enable us to maintain the requisite defense posture needed under present world conditions without inducing national bankruptcy and its concomitant economic defeat by an intolerable atheistic society. In the next chapter we shall examine industry's training requirements for comptrollership in terms of its goals.

CHAPTER II

COMPTROLLERSHIP TRAINING IN INDUSTRY

The goal in industry.--The goal of a business enterprise in American industry is to make a profit. To accomplish this goal it must produce goods or services at a cost below the selling price which its goods or services can command in the market place. The basic economic functions the enterprise performs in accomplishing this objective are those of production and distribution. These functions are in turn coordinated or tied together by the administrative function. Since there is no economic justification for performing the administrative function for the sake of itself, its costs are prorated to the two economic functions of production and distribution. Because of the complexities of modern industry, management has found it necessary to break down its costs into cost control centers within the foregoing functional departments so it could measure performance in terms of the overall goal of the enterprise. In other words, management had to know whether its cost centers were contributing their fair share to the production or distribution function within a cost ceiling which would permit sale of the end product in the market place. The traditional offices of Secretary and Treasurer had always maintained accounting records to safeguard the enterprise's assets, but the pressure of competition and complexities brought about by the great mergers in the early part of the present century forced management to look for a means of interpreting and projecting accounting data in meaningful terms upon which it could base its major decisions. What was needed was a "howgozit" curve. Management had to know not only what

its historical cists were and where it had been but where it was going.

While it is true that in recent years an enlightened American public has brought political pressure to bear in the form of laws to protect the public interest insofar as it pertains to quality standards of products, corporate taxation, and labor legislation, the fact remains that an enterprise must make a profit or competition will eliminate it from the business scene. Joel Dean, one of the foremost writers in this field in America today, states that profit is the measure of success of the business in our system of private enterprise. There are certain social criteria of success such as the quality of the product, rate of growth and behavior of the prices of the enterprise's products, but the desirability of the whole is fundamentally the profit system.

Since 1900 rapidly growing and intense competition, higher overhead costs, and the desire for larger profits have caused businesses to combine and form huge corporations that we have today. The fundamental motivation for this movement was the attainment of maximum profit from the operation of producing goods and services for sale in a competitive market. This expansion of American industry, and the unprecedented growth in size and complexity of the individual businesses have created a demand for better management practices. This demand has in turn brought with it a requirement for more adequate and scientific accounting and more exact financial control. In addition to the needs for more adequate accounting brought about by the forces in business themselves, political pressures have created an entirely new tax and labor environment which management has to adapt its organization to or else the organization perishes. It does little good to make a large profit and yet be unable to offer an adequate return on investment to the stockholder because certain key tax considerations were overlooked in planning the operations for the period.

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What then is the answer to management's problem in an environment characterized by intense competition, huge complex organizations, and unfavorable if not hostile political pressures? A partial answer to this problem is the provision of a broad gauged management staff officer who could convert the mass of accounting and statistical data which normally accrues in the operations of business to a meaningful "howgozit" curve. In other words, a comptroller. In summarizing the underlying causes for the development of the comptrollership function, Professor Jacob Hugh Jackson, a Dickinson Lecturer at the Harvard School of Business, makes the following comment: "The underlying causes for the changes in organization leading to the present stage of comptrollership development are to be found chiefly in two basic requirements of business: (a) the increasing necessity for a greater degree of concentration and specialization in the conduct of the accounting, auditing, and tax functions; and (b) the need not only for preserving one of the important "checks and balances" of the corporate mechanism--whereunder the processes of accounting and internal auditing may better serve as an independent check upon the receipt, disbursement, and custody of the corporate funds--but also in further strengthening the controls over expenditures, costs, and profits so essential to the successful conduct of business today."³

The comptroller's functions.--Before an attempt is made to outline a representative training program for the development of comptrollers, it is important that the need for such a program be clearly defined in terms of the operation of the enterprise as a whole. To define this need it is necessary to review the major functions which must be accomplished in the management of

³Jacob Hugh Jackson, The Comptroller: His Functions and Organization, (Cambridge: Harvard University Press, 1949), p. 14.

a modern business. These are: planning, organizing or directing, and controlling. The comptroller as the name implies performs his function by aiding management in the performance of the control function.

It is to be noted that the comptroller assists management in the control of operations. He does not control. He interprets accounting and statistical data from the corporation's operations and explains it clearly enough so the managers or the "line" people of the corporation can control. His function is strictly a staff function. Any attempt to treat it otherwise is certain to impair the future usefulness of the comptroller to management.

Probably one of the best available statements of the basic function of the comptroller's office is contained in a study made by Mr. D. H. Vorhies and J. Hugh Jackson for the Standard Oil Company of California in 1944. This study, made of the practices of twenty-five leading American corporations relative to the offices of secretary, treasurer, and comptroller, lists the following as the basic functions of the comptroller's office:

- (a) The accounting function, including the corporate, general financial, and cost-accounting operations, together with the methods and systems activities embracing the design, installation, and custody of all accounting books, records, and forms, and the coordination of the clerical and office systems and facilities throughout the company;
- (b) The auditing function, including the establishment and maintenance of internal controls, the audit of receipts and disbursements, general internal auditing, and the general relationship with the company's public accountant;
- (c) The tax function, including the assembly of information and the preparation of returns for income, excise, and payroll taxes, and the general relationship with tax agents and auditors; and,
- (d) The interpretative function, including the preparation, analysis, and explanation of financial facts, figures, and statistics to assist the directors, officers, and general management of the company in the formulation of plans and policies, the measure-

ment of results, or for other purposes of internal or external use.⁴

Although the above statement summarizes the basic comptrollership functions, it does not detail the duties and powers generally recognized as more representative of that office. To obtain an appreciation of the duties and powers of the comptroller it is recommended that the by-laws of some of the major industrial corporations such as the United States Steel Corporation be reviewed.⁵ Such by-laws reveal that the comptroller is not only the chief accounting officer of the corporation, but is also an executive of major importance who has assumed the duty of putting the corporate life on paper and interpreting that corporate life to policy-making executives of the corporation.

To summarize, the comptroller's basic mission is to analyze and interpret the accounting function so it will be useful to practical management and to safeguard the assets of the corporation. In the words of Mr. C. E. Knoepfel, comptrollership is

the investigative, analytical, suggestive and advisory function, studying the business at all points all the time, and formulating what the proposed practice should be with reference to sales and production control, which, when accepted or modified by the executive management, becomes the approved practice for use by the performance or 'line' function.⁶

The organizational level of the comptroller.--The previous paragraphs have demonstrated the need for the comptroller in modern American business and the functions this office performs in meeting this need. A third important aspect of the comptrollership task to be considered prior to the discussion of

⁴Ibid., p. 20.

⁵Jackson, op. cit., p. 21.

⁶John E. MacDonald, Comptrollership: Its Functions and Technique, (New York: Controller's Institute of America, 1940), p. 2.

a training program designed to prepare an individual for this profession is the organizational level at which the comptroller operates.

In their study of the functions and organization of top management, authors P. E. Holden, L. S. Fish and H. L. Smith recognized three levels or zones of management. These were:

- (a) The Trusteeship Zone, in which the function is to represent, safeguard, and further the stockholders' interests, determine the basic policies and the general course of the business, appraise the adequacy of over-all results, and in general protect and make the most effective use of the company's assets. This field is primarily the province of the board of directors.
- (b) The General-Management or Administrative Zone, which includes the active planning, direction, coordination, and control of the business as a whole, within the scope of basic policies established and authority delegated by the board. This function, in other words, involves the determination of objectives, of operating policies, and of results.
- (c) The Divisional-or Departmental-Management Zone, which includes the management of the major divisions or departments of the company by executives fully responsible and accountable to general management for the successful conduct of their respective operations. This zone embraces the topmost level of executives concerned primarily with a particular division of the company rather than with the enterprise as a whole.⁷

The determination of the level of management at which the comptroller functions depends upon the conception one has of the comptroller's office. The comptroller should be interested in the active planning, direction, coordination and control of the business as a whole. He should help in the determination of the objectives, operating policies, and measurement of ultimate results within the scope of the basic policies established by the board of directors. To do this, this officer has to become one of the top management

⁷ P. E. Holden, L. S. Fish, and H. L. Smith, Top Management: Organization and Control, (Stanford University Press, 1941), pp. 15 ff.

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group. He has to become a part of the general management or administrative zone and in some cases large corporations have found it advantageous to have the comptroller report directly to the board of directors.

In keeping with this philosophy the organization of the comptroller's department in progressive, well-managed companies is such that it recognizes the essential character of his work and places him on an administrative level which enables him to serve both the policy making group and the chief administrative level of top management. The comptroller is now recognized as a full fledged member of top management in progressive corporations and the general trend of the future appears to be a recognition of his place at this level in all businesses.

Qualities of a Comptroller.--So far the discussion in this chapter has concerned itself with the need for comptrollership in modern American business enterprises, the functions the comptroller performs to assist top management in accomplishing the enterprise's goal, and the organizational level at which the comptroller operates to obtain maximum results. Thus, the questions of "why a comptroller," "where the comptroller operates," and "what he does" has been briefly answered. The next question to be answered is: "What qualities and skills must a comptroller acquire to satisfactorily perform his mission?"

There is no universal agreement upon the qualities desired in a comptroller. These qualities are apt to vary widely from one company to another because the comptroller's duties in industry today are so varied that the nominal position in one company may have little similarity to the same position in another. The offices of president, secretary, and treasurer have long been recognized as indispensable to proper corporate organization. As a result, custom and business practices, as well as statutory provisions, have caused

these officers to be included in the management of American corporations. Because of this long heritage there is much uniformity in the recognition of the duties and responsibilities of these offices. Such is not the case with the office of comptroller--probably because of its relatively recent development in industry. The duties of the comptroller vary all the way from routine administrative responsibility for simple records and accounts to one of the top-administrative executives of the business entity. The discussion of qualities desired in a comptroller will concern itself with the latter type of a company officer.

Any discussion of the qualifications of a comptroller will point out the need for broad training and executive qualities. Different writers, however, have a different opinion on the amount of accounting theory and other technical skills required of the comptroller. For example, at one end of the spectrum Mr. Jacob Hugh Jackson says:

The comptroller and his assistants must be thoroughly steeped in accounting theory, since sound accounting principles are the foundation of and first consideration in their work.⁸

Mr. Charles A. Heiss also supports this view as is evidenced by the following quotation:

Sound theory gives his (the comptroller's) work a reasonable basis rooted in principles of equity tested by experience.⁹

At the other end of the spectrum is the view of Mr. John Van Pelt, Comptroller of the Kendall Company. In a speech before the 1958 Navy Graduate Comptrollership class he stated that report writing was a fundamental educational prerequisite for a comptroller, but in his opinion only one semester of account-

⁸Jackson, op. cit., p. 49.

⁹Accounting in the Administration of Large Business Enterprises, p. 5.

ing was required.¹⁰ Mr. Wayne Keller, Comptroller of the Armstrong Cork Company, was of the opinion that an undergraduate accounting major was not required for prospective comptrollers.¹¹ Similarly, Mr. Archerd, Assistant Comptroller for Bethlehem Steel held the opinion that a basic education in accounting of approximately twenty hours was all that was required. However, he believed that the prospective comptroller should have undergraduate training in law and engineering. Qualities he specified for a comptroller were: (1) twenty hours of accounting, (2) analytical ability, (3) creative imagination, (4) ability to write, (5) well developed personality, and (5) supervisory ability.¹²

T. F. Bradshaw in his book "Developing Men for Comptrollership" lists the following personality traits and skills which make a desirable comptroller:

(a) Personality Traits:

- (1) An orderly mind which seeks causes and can find a pattern of meaning in a mass of facts
- (2) A sense of perspective in what is important or unimportant
- (3) An objective mind to evaluate the various conflicting forces in a business
- (4) Patience to build a foundation of facts and figures for each problem
- (5) A personality that inspires confidence
- (6) A high degree of salesmanship

(b) Skills and abilities needed by the comptroller:

- (1) A knowledge of the functioning of all department's control points and figure needs
- (2) Administrative ability--the ability to get things done through people
- (3) Specialized skill in accounting, statistics, and figure know how.¹³

¹⁰Speech before the 1958 Navy Graduate Comptrollership class on 7 October 1957.

¹¹Speech before the 1958 Navy Graduate Comptrollership class on 9 January 1958.

¹²Speech before the 1958 Navy Graduate Comptrollership class on 21 November 1957.

¹³T. F. Bradshaw, Developing Men for Comptrollership, (Boston: Harvard University Press, 1950), Chapter I.

J. Brooks Hecker and James D. Willson in their book, Controllershship, give the following qualifications for a comptroller:

- (a) Personality traits--The controller needs the ability to get along with people, the ability to exercise unlimited patience, the ability to respect other men's ideas and opinions, and the practice of thinking problems through to the end.
- (b) Qualifications:
 - (1) A general understanding of the industry of which his company is a part and of the social, economic, and political forces directly related thereto.
 - (2) A thorough knowledge of his own company, its history, policies, program, organization, and, to a considerable extent its technical operations.
 - (3) An understanding of the basic problems of organization planning and control.
 - (4) An understanding of the basic problems of production, distribution, finance, and personnel management.
 - (5) The ability to analyze and interpret accounting and statistical data in such a manner that they become a basis for action.
 - (6) The ability to express ideas clearly in writing (and in proper English).
 - (7) A thorough knowledge of accounting principles and procedure and the ability to direct statistical inquiry.¹⁴

As the various opinions of the foregoing writers and speakers on required qualities and skills of the comptroller are viewed as a whole, a pattern starts to form. First of all, it is evident that if the comptroller is to be worthy of his position as the advisor to top management, he must have the executive ability and outlook of top management. This, of course, means that he must have a broad education and a broad business background of experience. Secondly, the

¹⁴ J. Brooks Heckert and James D. Wilson, Controllershship the Work of the Accounting Executive, (New York: The Ronald Press Co., 1952), p. 12.

1. The first of these is the fact that the Commission has not yet received any information from the Government regarding the progress of the investigation.

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technical skill required apparently depends upon the organizational level at which the prospective comptroller functions. Obviously the new college graduate starting out in an organization will have a greater need for technical skill in his day to day tasks than the president of the corporation. However, it is equally apparent that if the executive recruit is to graduate beyond the technical phase to the administrative phase and later to the conceptual phase of top management, he must make every effort to develop himself beyond that technical specialty.

Education for comptrollership.---Inasmuch as the foregoing paragraphs have defined the qualities and skills required by a comptroller in terms of the mission he performs in industry today, it is now possible to set forth a program for educating comptrollers.

The most frequent path utilized in the formal training for comptrollership is the school of commerce or business administration. As schools of business administration, they seek to train students for the several specialties in business including the function of comptrollership. The curriculum for the four year course has included an increasing proportion of specialized courses as research and experience have brought more and more of the art of business within the range of business technique.

The traditional four-year term has been extended to the graduate level to meet the special needs of certain general classes of students or to add intensive training when numbers and special facilities justify the extra time. Graduates of liberal arts colleges may enter a school of business administration and after two years of intensive study receive a Master's degree with specialization in a particular area, such as accounting and comptrollership. An example of such a program is the University of Michigan's MBA program. A MBA can be

obtained on the completion of sixty hours of graduate study. Thirty of the sixty hours can be credited from the undergraduate level if the undergraduate has a BA from the Michigan School of Business Administration. If the candidate has a BS from the School of Engineering, twenty-four hours of undergraduate work can be counted toward the total sixty hours required, but the MBA candidate must satisfy certain prerequisite undergraduate requirements in accounting, statistics, finance, marketing, and business law. In addition to the above requirements, nine hours of graduate work in graduate business administration courses are required.

Training in technical skills.--The technical skills required by a comptroller are: (1) a thorough groundwork in accounting, (2) training in statistics, (3) knowledge of organization and management of business as well as the national economy, (4) office management, (5) a survey of the methods and instruments of short-term and long-term financing, and (6) a brief survey of legal principles and their application to a wide variety of business situations.

As the previous pages pointed out there is a great deal of disagreement on the amount of basic technical accounting skill which should be covered in the preparation for a comptrollership position in business, but if one relates the comptroller's basic functions to a comptrollership educational program, it appears that accounting training in the following fields is basic:

- (1) Analysis--Accounting analysis beyond the elementary to properly interpret operating data.
- (2) Auditing--Auditing is normally a function of the comptroller. The major justification of this function is the development and maintenance of a swift smooth flow of accurate information to management.
- (3) Budgeting--Budgeting is a necessary function for all parts of a corporation but the coordination of the estimates of the separate divisions is usually delegated to the comptroller. The

comptroller is the logical clearing house for the records of the past and the expectations of the future.

- (4) Income tax accounting--This is one of the borderline areas involving law and accounting. The comptroller, however, must be aware of the impact of legal decisions on accounting principles.
- (5) Cost Accounting--Cost accounting methods and principles are essential in the economical use of manpower and materials.¹⁵

Broad background training.--The growing range of the comptroller's responsibilities requires broad background training as well as a variety of specialized technical skills. The comptroller must have perspective or else the facts he so skillfully extracts and summarizes will be interpreted too narrowly for the ultimate best interest of the corporation and the community of which it is a part. How does the comptroller gain this perspective? The educational preparation for the background he needs closely resembles the educational foundation considered desirable for any of the training professions. This training may be part of the curricula of the professional school of business administration, in a liberal arts college, or by wide and systematic reading coupled with full utilization of local cultural opportunities.

Of the background skills needed, the art of persuasion is probably the most important. Since the comptroller functions in a staff and not a line capacity, he achieves his results by persuasion rather than command. Therefore, skill in the effective use of the English language is a necessity for him. He has a particular need for skill not only in the mechanics of speech and writing but for enrichment of his vocabulary through wide reading in the best literature in all fields. Effective presentation is essential not only for internal relations but in public contacts as well. For example, the comptroller may be

¹⁵T. F. Bradshaw and C. C. Hull, Controllership in Modern Management, (Chicago: Richard D. Irwin, Inc., 1950), pp. 174 ff.

assigned the more difficult task of reducing stockholder and community resistance to management policies which are more intangible than the products of the factory.

Long ago our learned men discovered that to write or speak well one had to first learn how to think well. The ideas which the comptroller has to couch in persuasive language must be developed out of a general understanding of the social as well as the economic forces which move people to action. This suggests that the comptroller must be essentially a cultured individual with a wide knowledge of history, sociology, political science, philosophy, and psychology.

In addition to the art of persuasion, the function of the comptroller as interpreter of economic conditions to his management colleagues requires a thorough grounding in economic principles. His specific responsibility for coordinating the budget estimates demands an understanding of broad economic conditions as background for the statistical basis of the budget. Economic fallacies must be uncovered if they form the basis for some panacea for corporate or national illness. Price policies must be considered not only in terms of competitive reactions but also in terms of the monopolistic implications which they may raise with governmental regulatory bodies. The above problems indicate the values of sound economic analysis in the planning function of the enterprise. It is apparent that the comptroller with training in economics will be able to make better recommendations on policy to top management.

Postgraduate training programs.--Besides the formal undergraduate and graduate training programs designed for students still in school, industry has,

¹⁶ Harvard University Catalogue, 1957-58, p. 912.

in recent years, recognized more and more the need for a postgraduate training program for its middle management executives after they have acquired five to twelve years of experience. Such a program is exemplified by the Harvard Business School's Middle Management Training Program. The aim of this program is to help companies develop outstanding young men for increased responsibility. It is specifically designed to appeal to men whose training and experience have been more or less specialized. The program is of eight month's duration and covers the following fields: (1) Business Policy, (2) Administrative Practices, (3) Business and World Society, (4) Cost and Financial Administration, (5) Marketing Administration, and (6) Labor Relations.¹⁶

Practical training for comptrollership.--The preceeding discussion has concerned itself with the formal educational requirements for comptrollership. In addition to these programs there are experimental programs in certain schools and companies which combine work experience with instruction. This type of a training program could be called an internship program. The student interrupts his regular college course for one term, usually in his senior year to accept employment in a corporation. He follows a program of jobs in which he gains an opportunity to observe the functions of the comptroller's office.

A second type of training program developed by the individual corporations is one which is designed for recruits from the graduating classes of the various universities. The purpose of such a program is to indoctrinate and test their potential executive replacements, including the comptroller. Actually the program is merely an adaption of the historic apprenticeship program, modified to recognize the background laid by professional university training.

¹⁶ibid..

As an example of an on-the-job comptroller training program the Kendall Company's program is given below:

- (1) An eighteen month company-wide rotation pattern for comptroller development. During this period the potential executive is closely observed and rated by his supervisors.
- (2) On completion of the indoctrination period, the most promising comptroller trainees undergo a five-year, on-the-job training program in sales and production.

Other companies like the General Electric Company use the traveling audit program to give their most promising executive trainees for comptrollership the broad overall training required. Regardless of the manner of accomplishing their objective, the important thing to note is that industry has a definite program for giving its prospective comptroller's sound background knowledge in all phases of the particular industry of which they are a part.

Summary.--The educational program for comptrollership must be developed in terms of: (1) the mission of the comptroller in industry today, and (2) the functional skills and personality traits the comptroller must have to successfully accomplish this mission. In the profession of comptrollership a certain amount of basic skill in the technical subjects of accounting, statistics, organization and structure of business and the national economy, and the instruments of short and long-term financing is required. However, the real criteria which determines whether or not the comptroller is truly a member of top management is his viewpoint. If he has the "overall view" of the enterprise, he is worthy of top management status; if not, he is worthy only of the status of "chief bookkeeper." To obtain the "overall view" he must have the broad educational experience and business background which modern American corporations demand of their top management people. To be successful the comptroller must be a "broad gauged" individual.

Chapter III will discuss the function of comptrollership in the Navy in terms of the Navy's goal and the contribution this staff function makes toward the attainment of that goal. The next chapter will also discuss the qualifications of the Navy's comptrollers, the level at which they operate, and the conflict on the type of individuals assigned to comptrollership billets brought about by the peculiar composition of the Navy's management staff, i.e., its career civilian and military officers.

CHAPTER III

COMPTROLLERSHIP IN THE NAVY

The Navy's goal.--The goal of the Navy, like that of the other Services, is the preservation of our national security. The Navy's primary responsibility for the accomplishment of this goal is to be organized and equipped primarily for prompt and sustained combat incident to operations at sea.¹ In peacetime this means the Navy must have sufficient forces to implement our national policy of deterring aggression and in wartime sufficient forces to form the basic nucleus upon which necessary wartime forces can be built to win a general war when it occurs.

The Navy's goal, like that of industry's, is simple enough. What complicates the Navy's problem is the difficulty of measuring the attainment of its goal. Since it is a part of the public sector of the economy, it does not have the market place as a recording mechanism and the goal of profit as its guide. Even after the numerous accounting reforms in government that are mentioned in Chapter I are implemented, it will still not be possible to publish an overall entity financial statement which will show the Navy's "stockholders," the American taxpayers, how much profit their tax monies earned and what the growth of their equity was for a particular financial period of time. The taxpayer's profit is his freedom and "our way of life." It is hardly feasible to put a price tag upon these goods or even to measure how much of this freedom has been

¹Public Law 253, 80th Congress, National Security Act of 1947 (amended).

preserved.

Does the difficulty of pricing out the products of the Navy mean that the trend in government toward improved accounting and management practices is erroneous? Definitely not! As Chapter I pointed out, the threat of world communism today is economic as much as it is political or military. Therefore, the need for the modern industrial approach to the problem of managing a large complex organization such as the Naval establishment, would be present even if Congress had not directed this type of an approach for the entire Defense Establishment by the enactment of Title IV of the National Security Act of 1947.

The organizational level of comptrollership.--From the beginning of the comptrollership concept in the Department of Defense, there was a recognition in the Navy of the necessity of placing the Comptroller at the top management level. This is borne out by the fact that the Secretary of the Navy designated the Assistant Secretary of the Navy for Air as the first Comptroller of the Navy when that office was established on 1 June 1950. Later, when the Assistant Secretary of the Navy for Financial Management was established pursuant to Public Law 562, 83rd Congress, this office was designated as the Comptroller of the Navy. By the designation of an Assistant Secretary to serve full time as its Comptroller, the Navy further demonstrated its recognition of the importance of this function and the organizational level at which the comptroller should operate.

Bureau and Field Activity Comptrollers.--SecNav Instruction 5400.4 of 18 November 1953 sets forth the Navy's policy for establishing comptroller organizations throughout the Navy and Marine Corps. This directive states that it is the policy of the Secretary of the Navy to establish comptroller organizations in all bureaus and offices, Navy Department; Headquarters, Marine Corps;

and major field activities of the Navy and Marine Corps. (For this purpose, field activities include major administrative Fleet and Marine Corps commands). The establishment of comptroller organizations is considered a major step toward improved financial management in the Navy, as well as a direct service to command.

Comptroller organizations should be established at field activities where the size, scope, and complexity of fiscal operations justify the need. It is considered in general that the comptroller will make his maximum contribution to management in production and large service activities, such as shipyards, ordnance plants, supply centers, training centers, bases, Class A air stations and in MSTS headquarters.

Comptroller organizations are not considered appropriate for such field activities as branch hydrographic offices, inspectors of naval material, recruiting stations, naval net depots, area wage and classification offices, district records management centers, etc.

Organizational status of Field Activity Comptrollers.--The organizational status of the field activity comptroller is also specified in the Secretary of the Navy Instruction 5400.4 of 18 November 1953. Excerpts from this instruction are:

The comptroller should report directly to the bureau chief or activity commander in order that the greatest potential value may be realized from the staff services performed. The commanding officer is fully responsible for all actions of his organization. The comptroller operates in a staff capacity and is responsible to the commander served, in the same manner as the Navy Comptroller is responsible to the Secretary of the Navy. The comptroller, in addition to directing the internal operations of his own organization, has a responsibility for interpreting program and cost data, etc., and acting as technical advisor on the financial aspects of operations reflecting past management decisions or current problems. Accordingly, he must be responsive to the needs of management and he must anticipate the future requirements of current

programs with the perspective of achieving program objectives with economy and efficiency. The comptroller's activities have an impact on the organization only when implemented by command authority. While the comptroller reports on operating results as interpreted from data compiled under his direction, his operating decisions are confined basically to the work of his immediate organization. He recommends to management, but does not make management decisions. Accordingly, management should look upon the comptroller as a continuing source of ideas and advice on managerial problems.²

The staff concept.--Comptrollership is that function of the total management job that deals with the financial areas of an organization. It is concerned with those analyses, forecasts, records, reports, and procedures that have a bearing on the organization's financial status in relation to its mission or goal. It is not a line function, however. As indicated in the previous quotation comptrollership is a staff function which serves line management in the area of financial management. Since the line official has ultimate responsibility for his organization, it is this individual and not the comptroller who makes action decisions for the organization as a whole. The comptroller may recommend action, but only the line official decides what action will be taken. Admiral Edward W. Clepton, while serving as Deputy Comptroller of the Navy, explained the comptroller-command relationship as follows:

The Comptroller of the Navy in carrying out his assigned duties is meticulous to ensure that he in no way infringes upon nor usurps the responsibility and authority inherent in command. The nearest analogy, and the one that I have used frequently in fixing the position of the Comptroller relative to command, is that of the relationship of the navigator and the captain. The navigator lays down the courses that will keep the ship clear of the rocks and shoals while proceeding to its destination; he studies the effects of currents; he maintains an accurate knowledge of its progress during the passage, warns of its deviations and recommends to the captain necessary changes of course and speed. So also does the Comptroller lay down the safe course of fiscal policy, constantly checks its financial position and gives timely warning of approaching deficiencies.

² Department of the Navy, Office of the Secretary, SecNav Instruction 5400.4 of 18 November 1953.

But the Comptroller does not change fiscal policy without approval of command any more than the navigator changes the course of the ship without the approval of the captain.³

Functions of comptrollership.--The following basic functions of comptrollership should be performed by or for every bureau, office, and field activity, regardless of whether or not the activity's financial management is complex enough to justify the establishment of a formal comptroller organization.

(a) Integrated System for Financial Management. Such an integrated system establishes, coordinates, and maintains a system of staff service which will provide the commanding officer with the factual data essential for effective management control of operations. This integrated system provides for a classification of the programs administered and their objectives; for an inventory of budget plans and program schedules that should be kept current; for processes of budget formulation, review, and execution; for the collection of obligation, expenditure, cost, and other accounting and operating statistical data, and for a review of program performance and of the pattern of resources utilization.

(b) Budgeting. Provides guidance and instructions for preparation of the budget; reviews resources requirements and justifications for the various programs and prepares estimates of the cost thereof; compiles the annual budget; in connection with the budget process, recommends allocation of funds and civilian personnel to programs within the command, and revisions thereof as required; analyzes variances from the budget plan and recommends remedial action where appropriate; determines areas where desirable financial reprogramming may be effected; initiates action to adjust financial plans to available funds and, when required, submits requests for additional funds with justifications.

³ Bureau of Naval Personnel, Navpers 10792, 1956, p. 13.

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(c) Accounting and Disbursing. Within the framework of the policies and the system for Navy-wide accounting, personnel engaged in accounting and disbursing at the bureau level perform accounting for appropriations and funds under the control of the bureau or office and maintain related records. They are responsible for fiscal reports, evaluation and analysis, and for preparing instructions and procedures for field accounting operations under bureau management control.

At the field activity level, accounting and disbursing personnel maintain required accounting records, including records of obligations and expenditures against allotments and project orders; prepare accounting reports both for local management and for submission to higher authority; conduct cost accounting operations; maintain plant property records and financial records of inventory transactions of all classes of property, and submit all property returns; supervise and conduct timekeeping operations; maintain civilian pay, leave, and retirement records, and prepare civilian payrolls; pay civilian payrolls, and when authorized, pay public vouchers and military payrolls, and issue savings bonds. Disbursing reports and returns are also prepared and submitted by the aforementioned personnel.

(d) Program Analysis. Measures and analyzes performance, program status and trends against the approved programs and budget plans and schedules, and reports the results of operations to responsible levels of command. The system described in (a) above provides for the collection of data that will permit this kind of appraisal and detection of variances from the operating and budget plan so that management can take the appropriate action. This function of comptrollership is considered extremely important.

(e) Progress Reports and Statistics. Develops guides and criteria for the collection and coordination of statistical data and prepares special

The following table shows the results of the survey of the 1000 most common words in the English vocabulary. The words are arranged in order of frequency, and the number of occurrences of each word is given in the second column. The words are grouped into three classes: (1) words which occur in all the dialects, (2) words which occur in two or three dialects, and (3) words which occur in only one dialect. The words in the first class are the most common, and the words in the third class are the least common.

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The following table shows the results of the survey of the 1000 most common words in the English vocabulary. The words are arranged in order of frequency, and the number of occurrences of each word is given in the second column. The words are grouped into three classes: (1) words which occur in all the dialects, (2) words which occur in two or three dialects, and (3) words which occur in only one dialect. The words in the first class are the most common, and the words in the third class are the least common.

statistics as required by the responsible levels of command. Serves as coordinator and official clearance center for the release of statistical data. Each organizational component will have distinctive requirements for periodic progress reports and for special statistical data on the program it administers. Statistical reports should be rendered in time and in a manner that will insure optimum use by management.⁴

Duties and Responsibilities of the Comptroller of the Navy.--Although the above paragraphs give an indication of the extent of the comptroller's functions at the bureau and field level, a real appreciation of the scope of the comptroller's function is best gained by noting the duties and responsibilities of the Comptroller of the Navy. Section II of the Charter of the Comptroller of the Navy sets forth the following:

The mission of the Comptroller, under the authority of the Secretary of the Navy, is to formulate principles and policies and to prescribe procedures in the areas of budget, fiscal, accounting, audit, progress and statistical reporting throughout the Department of the Navy to the end that their use will result in meeting the operating and planning requirements of management with efficiency and economy. In general, the Comptroller will function in a staff capacity, except in specific cases when operations are required in the discharge of his statutory responsibilities, or by specific directive of higher authority. Examples of these exceptions are: The conduct of audits, the provision of financial assistance to defense contractors, and the performance of central accounting operations.

The Comptroller is directly responsible for budgeting, accounting, progress and statistical reporting, internal audit, providing financial assistance to defense contractors, and for the administrative organization structure and managerial procedures relating to such responsibilities within the Department of the Navy. In discharging these duties, he will be responsible for:

- (a) Development and establishment of basic fiscal policy and supervision of the execution thereof.
- (b) Budget Preparation: This responsibility extends to the technique and authority essential to the translation of policies, plans and programs of the Secretary of the Navy and the Chief of Naval Operations into a formal budget for presentation to the Secretary of Defense, the Bureau of the Budget, and the Congress. The duties and responsibilities

⁴SecNav Instructions 5400.4 of 18 November 1953, Encl. (1) p. 2.

of the Comptroller in no way diminish the military authority of the Chief of Naval Operations through the military chain of command over operating forces and their support. . . .

- (c) Budget administration, including a continuing review of the execution of approved budget plans and programs, and the allocation and apportionment of appropriations.
- (d) Allocation and control of civilian personnel ceilings.
- (e) Determinations with respect to, and the administration of, the guaranteed loan program, advance and progress payments, and other credits relative to procurement contracts.
- (f) Development and supervision of the execution of principles, policies, and procedures to be followed in fiscal, cost, capital and operating property, and working capital and management fund accounting throughout the Department of the Navy . . .
- (g) Prescription of the type and content of basic fiscal, cost, capital and operating property accounting records to be maintained by the bureaus and offices of the Department of the Navy.
- (h) Development of audit principles, policies, and procedures and the implementation, as required, of systems of internal audit including contract audit. . . .
- (i) The development of policy and general systems of statistical and progress reporting, primarily with respect to fiscal and budgetary matter.
- (j) Reports control policy and the general implementation thereof with respect to matters under the cognizance of the Comptroller.
- (k) Administrative organization structure and managerial procedures relating to budgeting, accounting, progress and statistical reporting, and internal auditing within the Department of the Navy.
- (l) Making available to management information collaterally generated through normal functioning of the Comptroller organization.
- (m) Coordination and correlation of matters under his cognizance with the Comptrollers of the Department of Defense, Army, and Air Force and other departments and agencies of the government.⁵

⁵Bureau of Naval Personnel, Navpers 10792, 1956, p. 212.

Qualifications of the Comptroller.--The qualifications for comptroller billets in the Naval Establishment can best be expressed by quoting paragraph III, B. 2. of SecNavInst 5400.4 of 18 November 1953.

2. Qualifications

- (a) The complex and continuing nature of the comptroller function is such that the qualifications of an officer or civilian appointed as the comptroller are most important to the effective discharge of his responsibilities. The officer or civilian so appointed should have had broad experience with operating programs and problems and general management responsibilities. He should have keen analytical ability and be capable of making discriminating judgments as well as be able to express concisely and effectively his conclusions and recommendations in either written or verbal form.
- (b) Comptroller billets will provide training to officers and civilians as part of their development toward high leadership roles in the Navy. A broad knowledge of the comptrollership function should be coupled with experience in, and knowledge of the operations carried on in a specific kind of naval program, such as shipbuilding, aircraft, etc. This may properly result in the ordering to duty of an aviator as comptroller in the Bureau of Aeronautics, a civil engineer as comptroller in the Bureau of Yards and Docks, a line officer as comptroller in the Bureau of Naval Personnel, an engineering officer as comptroller in the Bureau of Ships, and an officer of the Supply Corps as comptroller in the Bureau of Supplies and Accounts. When officers occupy the comptroller position, it is considered highly desirable that a civilian assistant be assigned in the Comptroller organizations in order to provide specialized knowledge and continuity to the conduct of comptroller functions.⁶

While the above quotation stresses the need for broad experience with operating programs and problems and general management responsibilities, it does not emphasize the need for broad experience with the operating forces of the Navy which is so important if the comptroller is to exercise sound judgment in his recommendations to command. As was mentioned in the beginning of this chapter, the measurement of the Navy's goal is hardly as simple as it is in

⁶SecNav Inst. 5400.4 of 18 November 1953.

industry where profit is the guide. The Navy must have sound financial management, but not at the expense of the readiness necessary to preserve our national security.

The Civilian-Military staffing problem.--In their study of personnel practices within the Department of Defense, the Hook Committee of the Second Hoover Commission reached the conclusion that to attract and retain more competent career civil service personnel, the Department of Defense would have to offer such individuals more of an opportunity for advancement, particularly in specialized technical fields. As a means to achieve this goal, the committee recommended that no career military officers be placed in billets in support type of activities if these officers were above the Lieutenant Colonel rank. This practice would enable the more competent career civil servants to advance to positions of responsibility up to and including the level of Division Director in support activities instead of being stopped at the Deputy level or below. The final report of the Second Hoover Commission incorporated this recommendation in both its report on Organization and Management Procedures of the Department of Defense and the report on Budget and Accounting Procedures within the Executive Branch of the government. Recommendation twenty-three of the latter report states:

That in selecting individuals for comptrollership civilians with broad management and accounting experience and competence be appointed.

Similarly, recommendation twenty-four of the same report concludes:

That comptrollers in the military departments be responsible only to the Secretary of their respective services and that concurrent responsibility to a Chief of Staff or equivalent be discontinued.

DOD Directive 1100.9 of 24 April 1957 implemented recommendation twenty-three by noting the Second Hoover Commission's recommendations and stating that henceforth the Services would give competent career civil servants the oppor-

tunity to advance to the Division Director level in fields where their specialized technical skill could be appropriately utilized such as in comptroller-ship, public information and medicine.

There is no doubt that the Second Hoover Commission's recommendations on this matter for the vast majority of the Executive Departmental Offices and agencies is correct. As long ago as 1935, the importance of a career program in improving the public service was recognized. The Commission of Inquiry on Public Service Personnel made this subject one of the series of studies and its report said:

We find that our government units, federal, state, and local, do not generally offer the more capable men and women a fair chance, in any way comparable with that offered by private business, industry, or the professions, for a lifetime of honorable work affording opportunity for advancement based on merit and accomplishment. . . . The cure is not to be found in negative prohibitive legislation, but in positive constructive action.⁷

However, the wisdom of the Hoover Commission's recommendation on this matter within the Department of Defense, is quite another matter. Since the days of Ghengis Kahn, it has been a military truism that the Military Commander who loses control of his lines of communications and his logistics is doomed to defeat in any campaign. If this has been true through history in conventional war, it is doubly true in the hydrogen age when not just a campaign, but the entire war can be decided in a matter of minutes.

In peacetime the comptroller, with his influence on the budgetary process certainly exerts a powerful influence upon final decisions insofar as the force levels are concerned even though he acts strictly in a staff capacity. The Johnson preparedness committee hearings in the Senate in the early part of this year certainly disclosed the influence of Assistant Secretary of Defense

⁷United States Civil Service Commission Inspection Service, Personnel Management Series No. 2. July, 1952.

(Comptroller), the Honorable Wilbur J. MacNeil on defense spending, particularly insofar as it pertained to final force level decisions and decisions on missile development.

Industry has found it necessary to select only the broadest type of top management, therefore it is inconsistent to recommend that Defense adopt industry practices insofar as management and accounting procedures are concerned, and at the same time recommend that a technical civil servant specialist be utilized in this position within the Department of Defense. Some issue may be taken with the word "specialist" as used above, but if the overall goal of the Defense Department or Service is borne in mind, one has to conclude that the civil servant cannot hope to have the same appreciation for the mission of the Service as his military counterpart because he does not get the same operational experience nor does he have the same job rotation pattern as the career military officer.

In industry the staff officer who imprudently advises a reduction in funds for the production or sales budget is called to account for his action as soon as revenues and profits drop. Within the Department of Defense an organization permeated by technical specialists who have no appreciation of the overall goal will not be called to account for their actions until the enemy's boots go marching down Pennsylvania Avenue. As any individual who has been in an occupied country can testify, it will then be far too late to extricate ourselves from our predicament.

This portion of the discussion can be summarized as follows: (1) The Second Hoover Commission is correct in its conclusion that civil service personnel practices have to be modified to hold the more competent types of individuals in government. (2) However, it is equally true that the personnel practices designed solely for the benefit of personnel without regard for the

mission of the organization are certain to lead to grief, particularly when an activity operates in the public sector of the economy where the discipline of the market place and the goal of profit is unavailable as a measure of performance in the attainment of the activity's goal.

Summary--this chapter has defined comptrollership in terms of the Navy's goal or mission, the functions performed by the comptroller, his qualifications, and the level at which he operates. A short discussion concerning the philosophical conflict on the type of individuals which should be assigned to comptrollership billets has also been included. As we have seen, this conflict is brought about by the peculiar composition of the Navy's management staff, i.e., its career civil servants and career military officers. The following chapter summarizes present officer postgraduate programs for training in comptrollership and sets forth the billets which should be filled by officers with training in comptrollership.

CHAPTER IV

THE NAVY'S POSTGRADUATE TRAINING PROGRAM FOR COMPTROLLERSHIP

The Navy's postgraduate training program for comptrollership consists of the graduate course of comptrollership offered at the George Washington University. There are, however, several other postgraduate courses in business administration and management and industrial engineering which provide officers with the basic education necessary for them to satisfactorily fill a comptrollership billet. Some of these courses are one or two year courses while others are of a temporary nature designed to serve as a review for officers occupying managerial positions in industrial activities of the naval establishment.

The following paragraphs will give a brief summary of these courses so the reader will be able to see the Navy's entire program in this field in perspective.

a. Comptrollership. Sponsored by the Comptroller of the Navy, this course is designed to prepare officers for assignment to duties in comptrollership or financial management as a normal preparation for command and executive billets in the Shore Establishment. This program was the Navy's answer to the mandate of Congress contained in Title IV of the National Security Act of 1947 (amended) insofar as the establishment of the comptroller concept in the Navy was concerned.

The curriculum is designed to give graduates training in both commercial and governmental aspects of comptrollership, including specific instruction in budget formulation and execution, managerial and cost accounting, internal

CHAPTER II

THE THEORY OF THE ELECTRIC CURRENT

The theory of the electric current is one of the most important branches of physics. It deals with the flow of electric charge through a conductor. The basic principle is that a potential difference (voltage) is required to drive the current. This is described by Ohm's Law, which states that the current (I) is directly proportional to the voltage (V) and inversely proportional to the resistance (R). The resistance of a conductor depends on its material, length, and cross-sectional area. The electric field (E) is the force per unit charge that drives the current. The magnetic field (B) is produced by the current and is perpendicular to the direction of the current. The power (P) dissipated in a resistor is given by P = VI, where V is the voltage across the resistor and I is the current through it.

The electric current is a scalar quantity, but the electric field and magnetic field are vector quantities. The direction of the current is defined as the direction of flow of positive charge. In a circuit, the current flows from the positive terminal of the battery to the negative terminal.

The resistance of a conductor is a measure of its opposition to the flow of current. It is defined as the ratio of the voltage across the conductor to the current through it. The resistance of a conductor is directly proportional to its length and inversely proportional to its cross-sectional area. The resistance of a conductor also depends on its temperature. The resistance of a conductor increases with temperature. The resistance of a semiconductor decreases with temperature. The resistance of a superconductor is zero at very low temperatures.

The electric current is a continuous flow of electric charge. It is measured in amperes (A). The electric field is measured in volts per meter (V/m). The magnetic field is measured in tesla (T). The power is measured in watts (W). The energy is measured in joules (J). The electric current is a fundamental quantity in physics. It is used to describe the behavior of electrical circuits and the operation of electrical devices.

auditing, statistics and reports control, program analysis, management engineering, advanced management, and industrial and governmental economics. Seminars in comptrollership are held at which there are discussions by comptrollers from both industry and government. When this course originally began, Captains, Commanders and Lieutenant Commanders with a maximum of twenty years and a minimum of ten years of commissioned service were eligible for the course. As will be seen from figure 1 hereto, there are very few comptrollership billets which require such seniority. Consequently, the rank structure of succeeding classes and years of service required for attendance have been lowered considerably since the original classes. As will be seen from figures 2 and 3 hereto, however, this follows the trend in all of the Navy's postgraduate educational programs. At the present time the postgraduate program calls for an officer to enter this phase of his education as early as three years after his original commission.

b. The Navy Management School. The Navy Management School is a component of the U. S. Naval Postgraduate School, Monterey, California. The mission of this school is to provide management training at the Postgraduate level for Naval officers in order that they may function more effectively in the performance of their assigned duties. The broadening of the mental outlook and resultant increase in professional knowledge will enable the officers to better meet the duties, responsibilities and complexities of higher rank, thereby improving the efficiency of the Navy.

The program of instruction consists of two ten-week terms, with the tenth week of each term devoted to special purposes of education, i.e., field trips, seminar projects, etc. The course of education is divided into three parts: (1) the basic management area, (2) the special management area that provides courses for the needs of particular officer designators, and (3) an elec-

tive area that supplements (1) and (2) above. In the basic management area courses are given in principles of management, human relations, executive action, management statistics and financial management. The special management area consists of courses in personnel management, industrial relations, contract administration, production planning, work measurement, work simplification and value engineering, inventory management, electronic data processing and management control.

Officer grades of Commander and below of all designators are eligible to attend this course and present thinking in the Bureau of Naval Personnel is to utilize this course as a supplement to the George Washington University course in order to train individuals for comptroller billets.

c. Business Administration. This is a two-year course offered at either Harvard or Stanford for Supply Corps officers or Aviation Engineering Duty Only officers. For the former type of officers, officers of the grades of Lieutenant (jg) through Lieutenant Commander are eligible while the latter officers are eligible if they are Commander or below. In addition to the course offered at Stanford and Harvard, a similar course of one year's duration is given at the University of Michigan. In this case the applicants are required to have a number of business administration prerequisites so only Supply Corps officers normally attend this institution.

The mission of the business administration course is to develop the ability in officers to analyze business organization, problems, and conditions, to acquire an appreciation for and an understanding of business as a whole, and to administer effectively future assignments which may require personal dealings with business and industrial concerns or utilization of business techniques.

d. Advanced Management. This thirteen-week course offered at Harvard is designed to keep selected officers abreast of developments in management engin-

engineering as practiced by large industrial firms. The program is a concentrated course of study for experienced managers in all areas of business and industry. The curriculum embraces study in: business policy, administrative practices, business and world society, cost and financial administration, marketing administration, and problems in labor relations. Harvard does not require any particular prerequisite type of course or educational background. It is interested more in how successful the individual has been in his profession or company. In the Navy's case, this means the candidate is a potential flag officer. For the most part candidates are Captains from the technical bureaus with special designators such as 1510 aviators.

In addition to the course offered at Harvard, Advanced Management is offered for eight weeks at Pittsburgh and six weeks at the University of Southern California. These courses are for officers of the grades of senior Lieutenant Commander to Captain. Their curricula is substantially the same as Harvard's, but not as detailed.

e. Management and Industrial Engineering. Offered at Rennassaleur Polytechnical Institute this course is designed to prepare officers to fill managerial and executive billets in the Navy's industrial organization.

The curriculum majors in advanced production and industrial engineering as applied to managerial problems. It includes law for engineers, economic analysis, personnel tests and measurements, cost finding and control, production planning and control, advanced motion and time study, statistical methods, industrial relations, and production management.

Officer grades of Commander, Lieutenant Commander and Lieutenant with designators of 1100, 1300, 1400, 1500, and 5100 are eligible for this course.

The billet paradox. Chapter III defined the mission of the comptroller in the Navy, his functions and the level at which he operated. By comparing

Chapters II and III, it can be seen that there is much in common between the Navy's concept of a comptroller and that of industry. In Figure 1 of this chapter, the reader will also note that the comptroller operates at the top management level of the Navy's field activities. In spite of the comptroller's manner of operating at the field level, however, there appears to be a serious gap in a complete follow through of the top management philosophy of comptrollership at the Navy Department level. This gap can be traced to the fact that few comptroller billets of senior rank exist in the budgetary planning process. With the exception of the Deputy Comptroller and his two or three Captain assistants, the comptrollership function is not represented in this process.

The magnitude of this gap can best be illustrated by comparing industry's budgetary process and long range plans for capital expansion with those of the Navy. In industry the comptroller is very much a part, not only of short range budget planning and operation, but also the long range plans for capital expansion as well. Very often his detailed figure function is combined with the company economists' long range predictions of general economics and industry growth to give the solid foundation for plans extending out to periods fifteen to twenty years hence, particularly in the utility industry. In other words, the comptroller furnishes the realism necessary to make the planner's dreams a sound document for top management to use as a guide for the decision making process.

If the comptrollership function adds realism to the planning function and budgetary process in industry, and the Navy is operated on a business-like basis, it would appear that the comptrollership function could serve the same purpose in the Navy planning and budgetary process.

This approach was tried by the first Secretary of Defense, Mr. Forrestal, on 23 June 1948 when he set up the McNarney Board to price out the individual

Service's Force Levels for the 1949-1950 budget. Unfortunately, adequate control did not exist in the Secretary of Defense's office at this time to accomplish this objective and the Committee could never get the Service Chiefs to agree to an overall budget of less than \$23.5 billion so President Truman finally by-passed the planning process and set the budget at \$15 billion which was all that his economic advisors believed the national economy was capable of supporting at that time.

This same issue had subsequently arisen several times since 1948 but usually the Chairman of the Joint Chief of Staff have commented as did General Bradley in the summer of 1953 when he said:

As a military man I do not know how great our expenditures can be without danger to our economy--that's someone else's decision. In the years ahead, however, I hope the decisions for security will always be based upon our needs and our actual ability to maintain these forces over a long period of time. In my opinion, we must maintain as long as the need exists whatever forces are necessary to preserve our country and our freedom.¹

Because of the political and economic nature of the national budget, perhaps the foregoing philosophy is sound. However, it is submitted that the speed and destructive power of modern war is such that our nation can ill afford to depend upon national strategic plans which squander scarce money, manpower and material. The days when gross errors of feasibility in the planning process can be covered up by the tremendous productive capacity of our industrial machine are gone forever. Modern war demands a realism in the strategic planning process which the comptrollership function can furnish if given the chance.

A billet proposal. Insofar as the Navy's material Bureaus are concerned, their restricted line officers furnish the technical know-how and business

¹General Omar Bradley, "A Farewell Report to the Nation," Saturday Evening Post, August 22, 1953, p. 20.

knowledge to adequately perform a top management comptrollership function in the execution of their budget. However, the bureaus, by their nature, do not set requirements. They perform only producer logistics functions. These activities like the field activities are capable of and utilize the comptrollership function as it should be utilized--at the top management level, but they are unable to cover the comptrollership gap any better than the field activities because they do not participate in the original budgetary planning process. What then is the solution? It appears that the ideal solution to the Navy's dilemma is to designate key planning billets in OPNAV as comptroller billets to be filled only with comptrollership graduates who had previous extensive planning experience. The Strategic Plans Division, the Long Range Plans Division, the Logistic Plans Division, the General Planning Group, and the Aviation Plans Division are but a few of the more important planning divisions where planners with training in comptrollership are needed to give the realism of the "figure function" to the dreamers.

Summary. The foregoing paragraphs would seem to indicate that the Navy has a substantial program for postgraduate training in comptrollership, business administration and industrial management. However, it is to be noted that these programs for the most part are designed for officers with a particular technical specialty designator such as aviation engineering duty only or the supply corps. There is no written directive which states that the technical bureaus will send only officers with specialized designators to the advanced management school, for example, but this practice is followed because such officers are normally in charge of large programs that deal with industry.

Of all the Navy's postgraduate programs in this field, only the comptrollership program at George Washington University appears to be designed to give officers the broad business and governmental background which will enable

these officers to function in a manner similar to that of the industrial comptroller.

The Navy's concept of the comptrollership function is similar to industry's, but a gap exists in the implementation of this concept in the budgetary planning process. If more of the comptrollers know-how were brought to bear, a sounder overall strategic plan would result. Therefore, it appears that more key planning billets in OPNAV should require postgraduate education in comptrollership.

FIGURE 1 (1)

**BILLETS REQUIRING POSTGRADUATE
EDUCATION FOR COMPTROLLERSHIP**

<u>Activity</u>	<u>Billet</u>	<u>Designator</u>	<u>Rank</u>
SecNav's Office and Exos	Dep Comp	1100	Adm
CinCNelm	Comptroller	1100	Capt.
Naval Gun Factory	Comptroller	1100	Capt.
Hdqtrs. U. S. EuCom	Management Br Ch	1100	Capt.
Hdqtrs. 1st N.D. Boston	Comptroller	1100	Capt.
Hdqtrs. 9th N.D. Great Lakes	Comptroller	1100	Capt.
Hdqtrs. 6th N.D. Chasn, S.C.	Comptroller	1100	Capt.
Hdqtrs. 5th N.D. Norfolk	Comptroller	1100	Capt.
Hdqtrs. 4th N.D. Phila	Comptroller	1100	Capt.
Hdqtrs. 11th N.D. San Diego	Comptroller	1100	Capt.
Hdqtrs. 12th N.D. San Fran	Comptroller	1100	Capt.
Hdqtrs. 13th N.D. Seattle	Comptroller	1100	Capt.
OpNav	Op-02C	1100	Capt.
DNC OpNav ND Wash DC	Hd. Current Plans	1100	Capt.
Phib Base Coronado	Comptroller	1100	Cdr.
Phib Base L. Creek Norfolk	Comptroller	1100	Cdr.
CinCNelm	Management Engr	1100	Cdr.
Hdqtrs. 8th N.D. New Orleans	Comptroller	1100	Cdr.
Hdqtrs. 3rd N.D. New York	Comptroller	1100	Cdr.
Hydro Off Suitland, Md.	Comptroller	1100	Cdr.
DNC OpNav ND, Wash, DC	Asst. Hd. Current Plans	1100	Cdr.
Naval Academy, Annapolis	Comptroller	1100	Cdr.
Post Grad Sch Monterey	Comptroller	1100	Cdr.
Hdqtrs U.S. EuCom	Manage Orgn Cont	1100	LCdr.
DNC OpNav ND, Wash, DC	Tech Analyst	1100	LCdr.
Com NTC Bainbridge	Comptroller	1100	LCdr.
Com NTC Great Lakes	Comptroller	1100	LCdr.
Com NTC San Diego	Comptroller	1100	LCdr.
NADC Johnsville Pa	Prog AEEL	1300	Cdr.
NAMTC Pt. Mugu, Calif.	Comptr. NAMTC	1300	Cdr.
NAS Quonset Pt.	Comptroller	1300	Cdr.
NAS North Island	Comptroller	1300	Cdr.
NADC Johnsville, Pa.	Comptroller	1300	Cdr.
NAMC Phila Pa.	Comptroller	1300	Cdr.
NAMTC Pt. Mugu, Calif.	Comptroller	1300	Cdr.
NAS Alameda, Calif.	Comptroller	1300	Cdr.
NAS Cecil Fld. Jax	Comptroller	1300	Cdr.
NAS Corpus Christie, Tex.	Comptroller	1300	Cdr.
NAS Jacksonville	Comptroller	1300	Cdr.
NAS Miramar, Calif.	Comptroller	1300	Cdr.

FIGURE 1 (con't)

<u>Activity</u>	<u>Billet</u>	<u>Designator</u>	<u>Rank</u>
NAS Norfolk, Va.	Comptroller	1300	Cdr.
NAS Oceana, Va.	Comptroller	1300	Cdr.
NAS Pensacola	Comptroller	1300	Cdr.
NATC Patuxent River Md.	Comptroller	1300	Cdr.

FIGURE 1 (2)

BILLETS REQUIRING POSTGRADUATE
EDUCATION FOR COMPTROLLERSHIP

<u>Activity</u>	<u>Billet</u>	<u>Designator</u>	<u>Rank</u>
NAS Lakehurst	Cost Control Off	1300	LCdr.
NAS Pensacola	Cost Control	1300	LCdr.
NAS Quonset Pt.	Cost Control Off	1300	LCdr.
CNAT	Ast Mgmt Engr	1300	LCdr.
NavAir Turb Test Sta Tren	Comptroller	1300	LCdr.
AEC	Prog & Budget Off	1310	Cdr.
BuShips	Comptroller	1400	Capt.
Nav Shipyard Boston, Mass.	Comptroller	1400	Capt.
Nav Shipyard Puget Sound	Comptroller	1400	Capt.
Nav Shipyard Brooklyn NY	Comptroller	1400	Capt.
Nav Shipyard Charleston SC	Comptroller	1400	Capt.
Nav Shipyard Pearl Harbor	Comptroller	1400	Capt.
Nav Shipyard Phila Pa.	Comptroller	1400	Capt.
Nav Shipyard Portsmouth, Va.	Comptroller	1400	Capt.
Nav Shipyard San Fran Calif	Comptroller	1400	Capt.
Nav Shipyard Long Beach	Comptroller	1400	Capt.
Nav Shipyard Mare Isle	Comptroller	1400	Capt.
BuShips	Spec Asst.	1400	Cdr.
Nav Repair Fac San Diego	Comptroller	1400	Cdr.
BuAer Gen Rep East Dist NY	Comptroller	1510	Cdr.
COMSTS Pac Area San Fran	Comptroller	3100	Capt.
BUSANDA	OD Comp Busanda	3100	Capt.
COMSTS	Comptroller	3100	Capt.
COMSTS Lant Area New York	Comptroller	3100	Capt.
COMSTS NPacs Area, Seattle	Comptroller	3100	Capt.
COMSTS West Pac Area	Comptroller	3100	Capt.
Off Secretary of Defense	Fiscal Specialist	3100	Capt.
Nav Sup Cen Norfolk	Comptroller	3100	Capt.
Nav Sup Cen Oakland	Comptroller	3100	Capt.
Nav Sup Cen Pearl Harbor	Comptroller	3100	Capt.
NSC Norfolk	Plan/Compt	3100	Capt.
NSC Oakland	Plan/Compt	3100	Capt.
NAD Hawthorne Nev.	Comptroller	3100	Cdr.
ComAirLant	Comptroller	3100	Cdr.
ComAirPac	Comptroller	3100	Cdr.
CinCNelm	Fiscal Asst.	3100	Cdr.
Com Task Group 7.3	Supply	3100	Cdr.
Joint Task Force 7	Ast. COS Compt.	3100	Cdr.
COMSTS	Asst Comptroller	3100	Cdr.
Mine Dep Yorktown, Va.	Comptroller	3100	Cdr.
Ord Plant Forext Pk. Ill.	Comptroller	3100	Cdr.
Powder Fact Indian Head Md.	Comptroller	3100	Cdr.
NPG Dahlgren, Va.	Comptroller	3100	Cdr.
NSD NB Annex Bayonne	Plng-Comptroller	3100	Cdr.

FIGURE 1 (3)

BILLETS REQUIRING POSTGRADUATE
EDUCATION FOR COMPTROLLERSHIP

<u>Activity</u>	<u>Billet</u>	<u>Designator</u>	<u>Rank</u>
NSD Clearfield, Utah	Comptroller	3100	Cdr.
NSD Mechanicsburgh, Pa.	Plng. Comptroller	3100	Cdr.
BUSANDA	Proj Mgr Compt	3100	Cdr.
JTF 7	Dep Comptroller	3100	Cdr.
NSD San Diego	Plan/Compt	3100	Cdr.
NAD Hastings, Nebr.	Comptroller	3100	LCdr.
NSD Clearfield	Plan/Compt.	3100	Cdr.
NSD Mechanicsburg	Plan/Compt	3100	Cdr.
NAD Hingham Mass	Comptr ADDU Disb	3100	LCdr.
NAD Oahu TH	Comptroller	3100	LCdr.
Magazine Pt. Chicago Cal	Comptroller	3100	LCdr.
COMSTS GulfSubArea NCSO No	Comptroller	3100	LCdr.
COMSTS	Asst Comptroller	3100	LCdr.
ORD Plant Pocatello	Compt-Disbursing	3100	LCdr.
Fld Comd--FSWP Sandia	Comptrol-Budget	3100	LCdr.
NSD San Diego	Comptroller	3100	LCdr.
Torp Sta Keypt. Wash	Comptroller	3100	LCdr.
NAD Crane	Comptroller	3100	LCdr.
NAD Earle	Comptroller	3100	LCdr.
NAD Seal Beach	Comptroller	3100	LCdr.
BUSANDA	Asst. Proj Mgr Compt	3100	LCdr.
MSTS New Orleans	Comptroller	3100	LCdr.
NOP Indianapolis	Comptroller	3100	LCdr.
NAD Bangor	Comptroller	3100	Lieut.
NAD St. Juliens Creek	Comptroller	3100	Lieut.
COMSUBNELMMSTS	Comptroller	3100	Lieut.
BuDocks F 100	Asst Ch Fin Mgt	5100	Capt.
BuDocks	Asst. Comptroller	5100	Cdr.
BuDocks F 110	Exec Asst Ch Fin	5100	Cdr.
PWC Guam	Exec	5100	Cdr.
PWC Norfolk	Asst OlnC	5100	Cdr.
PWC Pearl	Exec	5100	Cdr.
PWC Subic	Exec	5100	Cdr.
Sec Off & Exos	Staff Budg Review	5100	Cdr.
Sec Off & Exos	Staff Budg Review	5100	Cdr.
BuShips	Eng-Fiscal Asst	5100	LCdr.
BuDocks C 202	Spec Asst Finance	5100	LCdr.
O in CC Spain	Prog-Budget Cont	5100	LCdr.

IDEAL CAREER EDUCATIONAL PATTERN

1100'S

GRADES	YRS	PERIODS	PHASES	EDUCATION & TRAINING
MIDN or OC	4 3 2 1	PROFESSIONAL PREPARATORY PERIOD	BASIC PROFESSIONAL AND ACADEMIC EDUCATIONAL PHASE	PRE-COMMISSIONING EDUCATION
PRESENT ENS LTJG	OPA* 1 2 3 4 5	FUNDAMENTAL	SEA FIRST OPERATIONAL PHASE	ASSIGNMENT TO DUTIES IN AT LEAST TWO OF THREE GENERAL AREAS OF GUNNERY ENGINEERING & OPERATIONS
LT	6 7 8	PROFESSIONAL DEVELOPMENT	SHORE TECHNICAL & PROFESSIONAL EDUCATIONAL PHASE	GRADUATE TECHNICAL AND PROFESSIONAL EDUCATION AT PG & GLS NOTE: 5-TERM UNDERGRADUATE EDUCATION IF REQUIRED
LT	9 10 11 12	PERIOD	SEA SECOND OPERATIONAL PHASE	ASSIGNMENT TO DUTIES IN ONE OF THE GENERAL AREAS IN WHICH PREVIOUSLY EXPERIENCED
LCDR	13 14	ADVANCED	SHORE FIRST ADVANCED EDUCATIONAL PHASE	JR. SERVICE COLLEGES SELECTED PG EDUCATION
LCDR	15	PROFESSIONAL	SEA FIRST ADVANCED OPERATIONAL PHASE	COMMAND & STAFF EXPERIENCE HEAD OF DEPARTMENT AFLOAT
CDR	16 17 18	PROFESSIONAL DEVELOPMENT	SHORE SECOND ADVANCED EDUCATIONAL PHASE	JR. & SR. SERVICE COLLEGES SELECTED PG EDUCATION
CDR	19 20 21	PERIOD	SEA SECOND ADVANCED OPERATIONAL PHASE	COMMAND & STAFF EXPERIENCE AFLOAT
CAPT	22 23 24	PERIOD	SHORE FINAL ADVANCED EDUCATIONAL PHASE	SENIOR SERVICE COLLEGES SELECTED PG EDUCATION
CAPT	25 26 27 28 29 30	FINAL PROFESSIONAL DEVELOPMENT PERIOD	SEA & SHORE FINAL DEVELOPMENT PHASES ASHORE & AFLOAT	MAJOR COMMAND & STAFFS AFLOAT

Figure 2





IDEAL CAREER EDUCATIONAL PATTERN

1310'S



GRADES	YRS	PERIODS	PHASES	EDUCATION & TRAINING
MIDN, AVCAD, or OC	4 3 2 1	PROFESSIONAL PREPARATORY PERIOD	BASIC PROFESSIONAL AND ACADEMIC EDUCATIONAL PHASE	PRE-COMMISSIONING EDUCATION
PRESENT ENS	OPA* 1			
	2			
	3	FUNDAMENTAL	SEA FIRST OPERATIONAL PHASE	ASSIGNMENT TO FLEET AIRCRAFT SQUADRON DUTIES
LTJG	4			
	5	PROFESSIONAL	SHORE TECHNICAL & PROFESSIONAL EDUCATIONAL PHASE	GRADUATE TECHNICAL & PROFESSIONAL EDUCATION AT PG & GLS NOTE: 5-TERM UNDERGRADUATE EDUCATION IF REQUIRED
	6			
LT	7	DEVELOPMENT		
	8			
	9	PERIOD	SEA SECOND OPERATIONAL PHASE	ASSIGNMENT TO SENIOR DUTIES IN FLEET SQUADRONS AND BILLETTS IN SHIPS
	10			
	11			
	12			
	13	ADVANCED	SHORE FIRST ADVANCED EDUCATIONAL PHASE	JR. SERVICE COLLEGES SELECTED PG EDUCATION
LCDR	14			
	15	PROFESSIONAL	SEA FIRST ADVANCED OPERATIONAL PHASE	COMMAND & STAFF EXPERIENCE HEAD OF DEPT AFLOAT
	16			
CDR	17	DEVELOPMENT	SHORE SECOND ADVANCED EDUCATIONAL PHASE	JR. & SR. SERVICE COLLEGES SELECTED PG EDUCATION
	18			
	19			
	20		SEA SECOND ADVANCED OPERATIONAL PHASE	COMMAND & STAFF EXPERIENCE AFLOAT
	21	PERIOD		
	22		SHORE FINAL ADVANCED EDUCATIONAL PHASE	SENIOR SERVICE COLLEGES SELECTED PG EDUCATION
	23			
CAPT	24			
	25	FINAL	SH FINAL DEVELOPMENT	MAJOR COMMAND
	26	PROFESSIONAL	SEA PHASES	& STAFFS
	27	DEVELOPMENT	SHORE ASHORE & AFLOAT	AFLOAT
	28	PERIOD		
	29			
	30			

* OFFICER PERSONNEL ACT OF 1947

Figure (3)



CHAPTER V

COMPARISON OF COMPTROLLERSHIP TRAINING PROGRAMS OF INDUSTRY AND THE NAVY

Since the basic undergraduate education for managerial positions in industry and officer commissions in the Navy may be quite different, the logical basis for comparison of the comptrollership training programs of each lie in their postgraduate programs. Therefore, the Harvard's Middle Management School for industry was chosen as a program to compare with the Navy's Graduate Comptrollership program. The former program was chosen because of its stature in the business world and the similarity of its goal to the goal of the Navy's program.

Listed below are the salient features of each of these programs.

A. Harvard Middle Management Program.¹

- (1) Goal --To help companies develop their outstanding young men for increasing responsibility.
- (2) Aim--To provide a broad intensive background to enable a man to achieve fullest use of his abilities in the years ahead. The program is designed to appeal particularly to men whose training and experience have been more or less specialized.
- (3) Length--Eight months.
- (4) Curricula--The first part of the course is concerned with developing a sound background in the basic fundamental functional areas of administration, i.e. (a) Control--accounting and statistics, (b) Finance, (c) Marketing, (d) Production, (e) Human problems of administration. The second part of the course concentrates upon business responsibility, labor relations, report writing,

¹Harvard University catalog, 1957-58, p. 918.

business policy at the top management level, and general management. The general management course integrates functional area courses and cuts across departmental lines.

(5) Average age of students--33 years old

(6) Average business experience--5 to 12 years

B. The Navy Graduate Comptrollership Program.²

(1) Goal--To prepare officers for assignment to duties in comptrollership or financial management as a normal preparation for command and executive billets in the shore establishment.

(2) Aim--To give graduates training in both commercial and governmental aspects of comptrollership. Comment--As Chapter I pointed out comptroller training promises to become a fundamental prerequisite to command in the future when operational and financial management responsibility are centered in one commander. Therefore, the aim of the program can be stated as the preparation for higher command.

(3) Length--One year

(4) Curricula--Government contract principles, budget formulation and execution, managerial and cost accounting, internal audit, statistics and reports control, human relations, business reports, financial management, marketing, advanced management, industrial and governmental economics, and seminars in comptrollership in which there are discussions by comptrollers from both industry and government.

(5) Average age of students--34

(6) Average naval experience -- 5 to 15 years. Officers of the grades of Lieutenant through Commander.

As these two programs are compared in detail it appears that there is a great deal of similarity between them. The Harvard course contains some subjects which are of limited applicability to the Navy such as production, but the Navy course substitutes in lieu thereof subjects such as budget formulation and execution and government contract principles. This substitution is as it

²BuPers Instruction 1510.15A

should be since the Navy operates in the public instead of the private sector of the economy.

Both programs emphasizes the necessity for salesmanship in carrying out every day management responsibilities by stressing human relations and communications. Finally it is to be noted that both programs stress preparation for the broad managerial viewpoint.

Summary. To summarize it can be said that the Navy Graduate Program for Comptrollership at the George Washington University is very similar to the Middle Management Program at Harvard University. The difference between them is due primarily to the fact that one program educates its students for command positions in the public sector of the economy while the other educates its graduates to be top management people in the private sector of the economy. Both programs are designed to give middle management the broad educational background necessary to advance to top level management or command positions. This entails a certain amount of education in the technical skills of control, finance, budgeting and contract administration, but the emphasis is and properly should be upon education for top management.

CHAPTER VI

CONCLUSIONS

The introduction to this paper expressed the thought that comptrollership training in the Navy, like its counterpart in industry, should prepare an individual for top command and management positions instead of a technical specialty. The justification for this approach to comptrollership training is based upon the fact that the modern concept of comptrollership requires a broad gauged individual with a thorough appreciation of all aspects of the organization's problems if the comptrollership function is to make its maximum contribution to top management. If the Navy is to be administered as industry administers its large corporate organizations with the same modern business management techniques, then it follows that the comptrollership concept in the Navy and the training of individuals for this billet should parallel industry's experience.

The ever increasing importance of comptrollership to the successful exercise of command is apparent to any one who has followed the actions of either Congress or the Executive branch of the government since the enactment of Title IV of the National Security Act of 1947. It was the purpose of this treatise to point up the need for line officer training in the modern concept of comptrollership, to compare the industrial and naval functions of comptrollership and the training programs of each, and finally to form some conclusions about the adequacy of the Navy's training programs for comptrollership in today's Navy.

As a result of the comparison between industry and the Navy the following

conclusions have been reached.

(1) The Navy, like industry, needs broad gauged individuals in comptrollership billets--not technicians. Inasmuch as the Navy operates in the public sector of the economy, the only way to insure that the Navy comptrollers have a thorough appreciation of the organization's overall mission is to program the comptroller billets in such a manner that operational experience is a prerequisite for the individuals occupying these billets. This concept would not preclude professional civil servants from occupying billets in comptrollership for purposes of continuity or where purely technical skills were the major requirement.

(2) The long term trend within the Department of Defense and the Navy is to establish the requirement for the proper exercise of financial management responsibility as well as military responsibility. Therefore, it appears that much more effort should be made to give the Navy's line officers a fundamental appreciation of the new financial environment in which they must exercise command.

(3) The Navy's training program for comptrollership at the George Washington University compares very favorably with the Harvard Middle Management School insofar as the preparation of individuals for top level command and management positions is concerned. However, the annual input of students to the Navy's program at George Washington is far too limited to provide the answer to the problem set forth in (2) above.

(4) The Navy's recently established Management School in Monterey, California will possibly provide an answer to the problem of educating line officers in the financial aspects of command in today's Navy. However, applications to date for this school have been disappointing. It is believed that this situation would correct itself if more publicity were given to the importance of financial management in the exercise of command in today's Naval Establishment.

the following have been made:

(1) The first of the factors which have been found to be important in the determination of the rate of reaction is the concentration of the reactants. It has been found that the rate of reaction increases with the concentration of the reactants. This is in accordance with the law of mass action, which states that the rate of reaction is proportional to the product of the concentrations of the reactants. This is a general principle which applies to all chemical reactions. It is the basis of the law of mass action, which is the basis of the law of chemical equilibrium.

(2) The second factor which has been found to be important in the determination of the rate of reaction is the temperature. It has been found that the rate of reaction increases with the temperature. This is in accordance with the law of Arrhenius, which states that the rate of reaction is proportional to the exponential of the negative of the activation energy divided by the product of the gas constant and the absolute temperature. This is a general principle which applies to all chemical reactions. It is the basis of the law of Arrhenius, which is the basis of the law of chemical equilibrium.

(3) The third factor which has been found to be important in the determination of the rate of reaction is the presence of a catalyst. It has been found that the rate of reaction increases with the presence of a catalyst. This is in accordance with the law of catalysis, which states that the rate of reaction is proportional to the concentration of the catalyst. This is a general principle which applies to all chemical reactions. It is the basis of the law of catalysis, which is the basis of the law of chemical equilibrium.

(4) The fourth factor which has been found to be important in the determination of the rate of reaction is the surface area of the reactants. It has been found that the rate of reaction increases with the surface area of the reactants. This is in accordance with the law of surface area, which states that the rate of reaction is proportional to the surface area of the reactants. This is a general principle which applies to all chemical reactions. It is the basis of the law of surface area, which is the basis of the law of chemical equilibrium.

(5) The Navy's postgraduate training programs for advanced management and industrial engineering are utilized primarily for restricted line and staff corps officers. Therefore, these courses will not broaden the base of business experience in our professional line officer corps.

(6) The integrated civilian-military staffing criteria in support activities of the naval establishment requires that the professional officer corps either prepare itself for their new fiscal environment or forfeit their positions of leadership and responsibility in these activities. Should the latter development occur, it is obvious that the shore establishment will be less effective in carrying out its traditional mission of supporting the fleet because financial considerations will be much more apt to overbalance military considerations in the accomplishment of the mission of the activity.

(7) Although the Navy's Graduate Program for Comptrollership very effectively prepares its students for the exercise of higher command and management positions, present billet structure for comptrollers in the Navy precludes the full utilization of its graduates in comptrollership positions. A possible solution to this problem would be the re-designation of key planning billets in OpNav as comptroller billets.

(8) As a final conclusion the following thought is expressed. Since the enactment of Title IV of the National Security Act of 1947, officers of the Navy have been faced with an entirely new environment in which they must exercise command. This environment has been imposed by Congress and the President for good and sufficient reason. The officer corps of the Navy has always maintained that the successful exercise of command is the primary reason for its existence. Moreover, the corps has a proud tradition of an ability to adapt itself to the most exacting environmental requirements in its exercise of command in both peace and wartime situations. The new challenge posed by the

marriage of financial management responsibility to military responsibility in the exercise of command will be met and conquered just as the line officers of former years conquered the new environments of command posed by the advent of steam or the airplane. Comptrollership is but one of many of the Navy's programs to prepare its officers for higher command. However, the success or failure of this program will be measured in direct proportion to the contribution this training makes toward the individual officer student's preparation for higher command. If the program does not enhance the officer's command potential, then the Navy's funds and the student's time and effort have been expended in vain. This need not occur if the Navy Graduate Comptrollership Program continues to educate its students to be comptrollers instead of technicians.

BIBLIOGRAPHY

Books

- Bradshaw, T. F. Developing Men for Comptrollership. Boston: Harvard University Press, 1950.
- Bradshaw, T. F., and Hull, C. C. (ed). Controllership in Modern Management. Chicago: Irwin, Inc., 1950.
- Burkhead, Jesse. Government Budgeting. New York: John Willey and Sons, Inc., 1954.
- Heckert, J. Brooks, and Willson, James D. Controllership: The Work of the Accounting Executive. New York: The Ronald Press, 1952.
- Mosher, Frederick C. Program Budgeting: Theory and Practice. Chicago: Public Administration Service, 1954.

Articles

- Bradshaw, T. F., and VanPelt, J. V. III. "The Place of the Controller in Management Planning and Control," The Controller, October, 1952.
- Beutow, H. P., and Miller, L. A. "The President Looks at the Comptrollership Function," The Controller, March, 1956.
- Holden, P. E., Fish, L. S. and Smith, H. L. Top Management: Organization and Control. Stanford University Press, 1941.
- Jackson, Jacob Hugh. Dickinson Lecturer. The Comptroller: His Functions and Organization. Cambridge: Harvard University Press, 1949.
- MacDonald, John E. "Controllership: Its Functions and Technique," Controller's Institute of America. New York: 1940.
- Pierce, James L. "The Controller's Function--A Modern Concept," The Controller, September, 1952.
- _____. "Controllership and Accounting--A Contrast," The Controller, September, 1953.

Public Law 216, National Security Act of 1947, as amended to 1949.

Official Navy Pamphlets

NavPers 10792, "Financial Management in the Navy."

Asst. SecDef, Comptroller. "A Program for Improving Financial Management in the Department of Defense."

2nd Hoover Commission. "Business Organization for the Department of Defense."

Research Report of 1958 Class, Navy Graduate Comptrollership Program.
"Financial Management in the Shore Establishment."

Cain, John H. "The Comptroller in the Navy, A Concept."

Bureau of the Budget, Executive Office of the President. "Improvement of Financial Management in the Federal Government."

Department of the Navy, Office of the Secretary. SecNav Instruction 5400.4 of 18 November 1953.

Bureau of Naval Personnel, NavPers 10792, 1956.

Bureau of Naval Personnel, BuPers Instruction 1510.15 A, 16 May 1955.

Bureau of Naval Personnel, Report on the Postgraduate Educational Program of the Navy, 1956, Prepared by a Board appointed by the Chief of Naval Personnel. (Daniel-Weekly Board Report)

STANDARD TEST METHODS

Section 1001, "Standard Methods for the Analysis of Water"

1001.1001, "Standard Methods for the Analysis of Water"

1001.1001, "Standard Methods for the Analysis of Water"

1001.1001, "Standard Methods for the Analysis of Water"

1001.1001, "Standard Methods for the Analysis of Water"

1001.1001, "Standard Methods for the Analysis of Water"

1001.1001, "Standard Methods for the Analysis of Water"

1001.1001, "Standard Methods for the Analysis of Water"

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